

* SWBAT solve word problems using $F=ma$

Sep 6-2:31 PM

Welcome!!!

SECA Physics
Friday 24 October 2014

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- * Pick up:
- slip of paper (for later)
 - packet

Centering...

Opening Question:

<http://www.youtube.com/watch?v=6ZzIKKxhg7A>

Eureka 6: gravity

How would you explain the difference between **force** and **mass**???

↳ How MUCH STUFF, How HARD TO PUSH/PULL

What does this have to do with weight???

↳ IS A FORCE DUE TO GRAVITY

Newton's
2nd LAW

$$F = m \cdot a$$

$$W = m \cdot g \quad \text{ON EARTH} \quad g = 10 \text{ m/s}^2$$

If my mass is 55 kg what is the force on me due to gravity?

$$F = ? = W = 55 \text{ kg} \cdot 10 \text{ m/s}^2 = 550 \text{ N}$$

$$m = 55 \text{ kg}$$

$$= 550 \frac{\text{kg} \cdot \text{m}}{\text{s}^2}$$

$$a = 10 \text{ m/s}^2 = g$$

Sep 7-7:04 AM

Worksheet Packet:

- Circle one of the choices
- THINK carefully
- Make sure you are comfortable with first 2 pages

$$F = ma$$

$$W = m \cdot g$$

$$\frac{F}{m \cdot a}$$

More force \Rightarrow MORE ACC.

More mass \Rightarrow LESS ACC.

Done? Do yesterday's worksheet if you weren't here... #1-4

A $a = \frac{1N}{1kg} = 1 m/s^2$

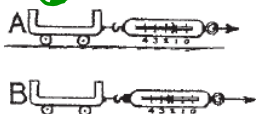
B $a = \frac{2N}{1kg} = 2 m/s^2$

Racing Day with $a = F/m$

In each situation below, Cart A has a mass of 1 kg.

1. Cart A is pulled with a force of 1 N. Cart B also has a mass of 1 kg and is pulled with a force of 2 N. Which undergoes the greater acceleration?

(A) (B) (Same for both)



Q3) $a_A = \frac{1N}{1kg} = 1 m/s^2$

$a_B = \frac{2N}{1kg} = 2 m/s^2$

Sep 21-2:13 PM

Quick Write:

DON'T NEED NAME

Given requirements for what to teach in physics, what would make it more fun / interesting? PROJECTS / ASSN

-OR- TELL ME ABOUT THINGS YOU HAVE / HAVEN'T LIKED IN SCIENCE CLASS

Oct 25-7:50 AM

Daily 3 Questions

No CP Homework

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1. ☒ True or false: $W = m g$ is a specific example of Newton's 2nd Law, $F = m a$

2. Cart B has ^{2 kg, 2N} **twice** as much **mass** as Cart A and is pulled with **twice** as much **force** as Cart A. Which has greater acceleration? ^{1 kg, 1N}

- A. Cart A
- B. Cart B
- ☒ C. Same acceleration for both

3. Use the equation triangle (or algebra) to determine the formula for "a":

- A. $a = m * F$
- B. $a = m / F$
- ☒ C. $a = F / m$

Oct 8-6:48 AM